

**PENGARUH UMUR BIBIT DAN KONSENTRASI POC  
(PUPUK ORGANIK CAIR) TERHADAP  
PERTUMBUHAN DAN HASIL BROKOLI  
(*Brassica oleracea* var. *Italica* L.)**



**SKRIPSI**

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FAKULTAS PERTANIAN  
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Diajukan kepada Fakultas Pertanian Universitas Muria Kudus  
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FAKULTAS PERTANIAN  
UNIVERSITAS MURIA KUDUS  
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**Pengaruh Umur Bibit dan Konsentrasi POC (Pupuk  
Organik Cair) terhadap Pertumbuhan dan Hasil  
Brokoli (*Brassica oleracea* var. *italica* L.)**

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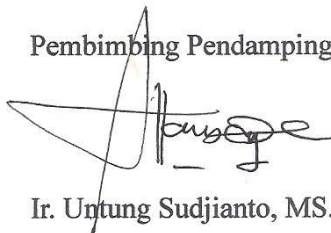
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Penyusun

## RINGKASAN

Penelitian bertujuan untuk mengetahui pengaruh umur bibit dan konsentrasi pupuk organik cair terhadap pertumbuhan dan hasil brokoli (*Brassica oleracea* var. *Italica* L.). Penelitian dilaksanakan di Desa Dukuhwaringin Kecamatan Dawe Kabupaten Kudus, Provinsi Jawa Tengah, terletak pada ketinggian rata-rata 400 meter di atas permukaan laut, beriklim tropis dan jenis tanah latosol. Penelitian dilaksanakan mulai bulan Maret sampai April 2012.

Rancangan yang digunakan adalah Rancangan Acak Kelompok Lengkap (RAKL) yang terdiri dari 2 faktor dan 3 ulangan yaitu Faktor I: Umur bibit ( $U$ );  $U_1$ : 2 minggu (setelah semai),  $U_2$ : 3 minggu (setelah semai),  $U_3$ : 4 minggu (setelah semai). Faktor II: Konsentrasi pupuk organik cair ( $K$ );  $K_0$ : kontrol,  $K_1$ : 5ml/liter,  $K_2$ : 10ml/liter,  $K_3$ : 15 ml/liter. Sehingga diperoleh 12 kombinasi dan 3 kali ulangan.

Hasil penelitian menunjukkan bahwa Perlakuan umur bibit berpengaruh nyata terhadap tinggi tanaman, jumlah daun, bobot bunga per petak, diameter kepala bunga, bobot bunga per tanaman, bobot brangkasan segar per tanaman dan bobot brangkasan kering per tanaman. Tetapi perlakuan umur bibit tidak berpengaruh nyata terhadap tinggi bunga, panjang akar primer dan umur berbunga. Perlakuan umur bibit 3 MSP ( $U_2$ ) menunjukkan hasil bobot bunga per tanaman yang tertinggi 364,75 gr sedangkan umur bibit 4 MSS ( $U_3$ ) menunjukkan hasil bobot bunga per tanaman yang terendah 229,67 gr.

Perlakuan konsentrasi pupuk organik cair tidak berpengaruh nyata terhadap semua parameter pengamatan yaitu tinggi tanaman, jumlah daun, tinggi bunga, bobot bunga per petak, diameter kepala bunga, bobot bunga per tanaman, bobot brangkasan segar per tanaman, bobot brangkasan kering per tanaman, panjang akar primer dan umur berbunga. Perlakuan konsentrasi pupuk organik cair 15 ml/L ( $K_3$ ) menunjukkan hasil bobot bunga per tanaman yang lebih tinggi 334,89 gr sedangkan konsentrasi pupuk organik cair 0 ml/L ( $K_0$ ) menunjukkan hasil bobot bunga per tanaman yang lebih rendah 284,67 gr.

Tidak ada interaksi antara umur bibit dan konsentrasi pupuk organik cair baik terhadap pertumbuhan maupun hasil brokoli.

Kombinasi perlakuan terbaik terdapat pada perlakuan umur bibit 2 HSS dengan konsentrasi pupuk cair 15 ml/L ( $U_1K_3$ ) yang memberikan bobot bunga per tanaman 402,67 gram, sedangkan hasil terendah terdapat pada perlakuan umur bibit 4 MSP dengan konsentrasi pupuk organik cair 15 ml/L ( $U_3K_3$ ) yaitu 202,67 gram.



## ABSTRACT

This research which was aimed at studying the effect of seedling age and concentration of liquid organic fertilizer on the growth and yield of broccoli (*Brassica oleracea* var. *Italica* L.), was conducted in Dukuhwaringin Village, Dawe Sub-district, Kudus District, Central Java Province, with latosol soil type on an elevation of 400 meters above sea level, from March thru April 2012.

The experimental method applied in this was Randomized Complete Block Design (RCBD) consisted of two factors as treatments and three replications. The first factor which was the seedling age (U), was divided into three levels, expressed in weeks after sowing (WAS), as follows: 2 WAS ( $U_1$ ), 3 WAS ( $U_2$ ), and 4 WAS ( $U_3$ ). The second factor, which was the concentration of liquid organic fertilizer (K) expressed in mL/L of water was also divided into three levels: 0 mL/L as control ( $K_0$ ), 5 mL/L ( $K_1$ ), 10 mL/L ( $K_2$ ), and 15 mL/L ( $K_3$ ).

It was found out at the end of this research, that the seedling age treatment significantly affected both the growth and the yield of broccoli, as showed by the results of all analyzed parameters, except for the flower height, primary root length and the flowering age. The 3 WAS treatment ( $U_2$ ) gave the highest weight of flowers per plant (364.75 grams), while the 4 WAS treatment ( $U_3$ ) gave the lowest (229.67 grams).

The liquid organic fertilizer concentration (K), on the other hand, did not significantly affect either the growth nor the yield of broccoli. The liquid organic fertilizer concentration of 15 mL/L ( $K_3$ ) produced the highest weight of flowers per plant (334.89 grams), in contrast to the 0 mL/L or control ( $K_0$ ) that produced the lowest (284.67 grams).

Moreover, no interaction was found between the seedling age and the concentration of liquid organic fertilizer on either the growth, nor the yield of broccoli.

The 2 WAS - 15 mL/L combination ( $U_1K_3$ ) gave the highest weight of flowers per plant (1,402.67 grams), in contrast to that of the 4 WAS - 15 mL/L combination ( $U_3K_3$ ) that gave the lowest (202.67 grams).

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